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[Redacted]

REMARKS**INTRODUCTION**

In accordance with the foregoing, claims 1, 13, 14, 29, 38, and 50 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-53 are pending and under consideration. Reconsideration is respectfully requested.

ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116

Applicant requests entry of this Rule 116 Response and Request for Reconsideration because U.S. Patent No. 6,282,302 to Hara, applied to claims 1-3, 13, and 14, is newly cited in the Final Office Action, and Applicant should be provided the opportunity to present patentability arguments and amendments in view thereof.

REQUEST FOR WITHDRAWAL OF FINALITY OF OFFICE ACTION

MPEP 706.07(a) states "Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)." At page 2, the Final Office Action indicates that "upon further consideration, a new ground(s) of rejection [is] made in view of Hara." Thus, this new ground of rejection was neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement. Accordingly, Applicant respectfully requests that the finality of this Office Action be withdrawn.

ALLOWABLE SUBJECT MATTER

Claims 15-28, 31, 34, 37, 40, 43, 46, and 49 have been indicated as allowable. Claims 4-12, 30, 33, 36, 39, 42, 45, 48, 51, and 53 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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REJECTIONS UNDER 35 U.S.C. §102**Claims 1-3, 13, and 14**

In the Office Action at pages 3-4, numbered item 5, claims 1-3, 13, and 14 were rejected under 35 U.S.C. §102(e) as being anticipated by newly cited U.S. Patent No. 6,282,302 to Hara. This rejection is traversed and reconsideration is requested.

Independent claim 1 is directed to a pattern-center determination apparatus for determining a pattern center of a fingerprint-like pattern, which is formed with a number of pattern curves. The apparatus of independent claim 1, as amended, recites "an auxiliary-line generation section for generating two or more auxiliary lines extending continuously from an outer circumference side of the pattern curves of the fingerprint-like pattern toward an inner circumference side of the pattern curves in such a manner that each of the two or more auxiliary lines consists of a number of successive line segments each of which intersects a respective one of the pattern curves perpendicularly or substantially perpendicularly" and "a pattern-center determination section for determining the pattern center based on one or more intersecting points at which the two or more auxiliary lines generated by said auxiliary-line generation section intersect with each other." Claims 2 and 3 depend directly from claim 1, and independent claims 13 and 14 have been amended to recite features similar to those of independent claim 1. Support for the amendments to the independent claims can be found in the originally filed Specification, for example, at least at page 44, line 25 to page 48, line 21.

Thus, according to the present invention, it is possible to determine the pattern center of a fingerprint-like pattern precisely and at a high speed compared with the conventional technique.

The Final Office Action asserts that all of the features of claims 1, 2, 3, 13, and 14 are taught in Figures 10 and 11 of Hara at col. 3, lines 44-52, and at col. 8, lines 4-38. Applicant respectfully disagrees.

Newly cited Hara, in contrast to the present invention, only teaches a device for cutting out individual fingerprint images from a tenprint card containing ten fingerprints. Hara teaches that a quadrangular cutout frame corresponding to the size of the individual fingerprint image of the tenprint card is superimposed in an arbitrary position on the tenprint card image.

Applicant respectfully submits that Hara is silent regarding the features of the present invention, and specifically regarding "an auxiliary-line generation section for generating two or more auxiliary lines extending continuously from an outer circumference side of the pattern curves of the fingerprint-like pattern toward an inner circumference side of the pattern curves in such a manner that each of the two or more auxiliary lines consists of a number of successive

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line segments each of which intersects a respective one of the pattern curves perpendicularly or substantially perpendicularly," as recited in amended independent claims 1, 13, and 14.

Applicant note that while Fig. 10 of Hara shows quadrangular cutout frame 51 having orthogonal axes x, y whose crossing point 53 is to be met at the core of the fingerprint to determine optimum cutout range and direction, Hara at col. 8, lines 4-38 teaches that these axes are merely set so as to be parallel to the respective sides of the cutout frame 51 and to cross with each other at the center of the cutout frame 51. Further, Hara suggests that, based on the displayed tenprint image, the operator moves the crossing point 53 to a visually-expected core of the fingerprint.

As Hara fails to teach or suggest "an auxiliary-line generation section for generating two or more auxiliary lines extending continuously from an outer circumference side of the pattern curves of the fingerprint-like pattern toward an inner circumference side of the pattern curves in such a manner that each of the two or more auxiliary lines consists of a number of successive line segments each of which intersects a respective one of the pattern curves perpendicularly or substantially perpendicularly" and "a pattern-center determination section for determining the pattern center based on one or more intersecting points at which the two or more auxiliary lines generated by said auxiliary-line generation section intersect with each other," Applicant respectfully submits that independent claim 1 and those claims depending directly or indirectly therefrom patentably distinguish over the prior art and are in condition for allowance.

As claims 13 and 14 recite features similar to those of independent claim 1, Applicant submits Hara fails to teach or suggest all of the features of claims 13 and 14 for reasons similar to those of Independent claim 1. Accordingly, Applicant respectfully submits that claims 13 and 14 are in condition for allowance.

Claims 50 and 52

In the Office Action at pages 5-6, numbered item 6, claims 50 and 52 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,241,288 to Bergenek. This rejection is traversed and reconsideration is requested.

Independent claim 50 is directed to a pattern alignment apparatus for aligning two fingerprint-like patterns, each of which is formed with a number of pattern curves, while adjusting the alignment of the two fingerprint-like patterns. In relevant part, independent claim 50 has been amended to recite "an adjustment-shift calculation section for calculating an adjustment shift amount based on a result of the collation by said collation section, said adjustment shift amount being determined in such a manner that when at least one of the two fingerprint-like patterns is shifted by said adjustment shift amount, the coincidence relationship between the two

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groups of minutiae collated by said collation section is improved." Support for this amendment can be found in the originally filed Specification, for example, at least at page 146, lines 2-25. Claim 52 depends directly from amended independent claim 50.

With the arrangement recited in amended independent claim 50, since the alignment can be improved based on the coincidence relationship between the minutiae groups of the fingerprint-like patterns, it is possible to verify or authenticate the fingerprint-like patterns efficiently and with a high precision.

Bergenek teaches a fingerprint identification/verification system using bitmaps of a stored fingerprint to correlate with a bitmap of an input fingerprint. According to the system taught by Bergenek, however, a portion in the center region of the input fingerprint image is correlated with a center portion of the stored fingerprint image on a pixel-by-pixel basis, and when the match between these portions is not acceptable, different center portions of the input fingerprint are selected by rotating the input fingerprint bit by bit, and additional correlations are performed using the newly selected center portions. See Bergenek at col. 14, lines 7-53. Applicant respectfully submits that Bergenek is silent regard the concept of determining an adjustment shift amount based on the coincidence relationship between minutiae extracted from the fingerprint-like patterns.

Thus, Bergenek does not teach or suggest "an adjustment-shift calculation section for calculating an adjustment shift amount based on a result of the collation by said collation section, said adjustment shift amount being determined in such a manner that when at least one of the two fingerprint-like patterns is shifted by said adjustment shift amount, the coincidence relationship between the two groups of minutiae collated by said collation section is improved," as recited in independent claim 50. Rather, Bergenek merely teaches that different portions of the input candidate center region are selected based on correlation results.

For at least this reason, Applicant respectfully submits that Bergenek fails to teach or suggest all of the features of independent claim 50 and those claims depending directly or indirectly therefrom. Accordingly, independent claim 50 and those claims depending directly or indirectly therfrom patentably distinguish over the prior art and are in condition for allowance.

REJECTION UNDER 35 U.S.C. §103

In the Office Action at pages 6-12, numbered item 7, claims 29, 32, 35, 38, 41, 44, and 47 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bergenek and Hara. The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

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Independent claims 29 and 38 each include a pattern-center determination section having "an auxiliary-line generation section for generating two or more auxiliary lines extending continuously from an outer circumference side of the pattern curves of the fingerprint-like pattern toward an inner circumference side of the pattern curves in such a manner that each of the auxiliary lines consists of a number of successive line segments each of which intersects a respective one of the pattern curves perpendicularly or substantially perpendicularly" and "a pattern-center determination section for determining the pattern center based on one or more intersecting points at which the two or more auxiliary lines generated by said auxiliary-line generation section intersect with each other." These features are similar to those recited by independent claim 1, and the rejections of claims 29 and 38 with respect to Hara are repeated verbatim from the rejection of independent claim 1.

Applicant respectfully submits that independent claims 29 and 38, and those claims depending directly or indirectly therefrom patentably distinguish over Hara for at least those reasons as independent claim 1. Bergenek fails to cure the deficiencies of Hara. Further, the rejections of claims 32, 35, 41, 44, and 47 also fail to cure the deficiencies of Hara noted with respect to claim 1. Thus, Applicant respectfully submits that Bergenek and Hara, taken alone or in combination, fail to teach or suggest all of the features of independent claims 29 and 38, and those claims depending therefrom, patentably distinguish over the prior art and are in condition for allowance.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

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If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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